

APPLICATION FOR EARTH STATION SPECIAL TEMPORARY AUTHORITY

APPLICANT INFORMATION Enter a description of this application to identify it on the main menu:
Request for 30-Day STA Using Riverside, CA Earth Station E040125 to Provide LEOP Services for GSAT-31

1. Applicant

Name:	Intelsat License LLC	Phone Number:	703-559-7848
DBA Name:		Fax Number:	703-559-8539
Street:	c/o Intelsat US LLC 7900 Tysons One Place	E-Mail:	susan.crandall@intelsat.com
City:	McLean	State:	VA
Country:	USA	Zipcode:	22102 -5972
Attention:	Susan H. Crandall		



File # SES-STF-20190102-00002

Call Sign E040125 Grant Date 1/3/2019
(or other identifier)

Term Dates
From 1/21/2019 To: 2/20/2019

Approved: Paul E. Hahn

Applicant: Intelsat License LLC
Call Sign: E040125
File No.: SES-STA-20190102-00002
Special Temporary Authority ("STA")



File # SES-STA-20190102-00002
Call Sign E040125 Grant Date 1/3/2019
(or other identifier)
Term Dates
From 1/21/2019 To 2/20/2019
Approved: Paul E. Hales

Intelsat License LLC is granted special temporary authority for 30 days, beginning January 21, 2019, to operate its Riverside, CA earth stations to provide launch and early orbit phase (LEOP) services for the GSAT-31 satellite, licensed by India, on center frequencies: 6415.000 MHz and 6423.496 MHz (Earth-to-space); and 4188.768 MHz and 4196.928 MHz (space-to-Earth) under the following conditions.

1. All operations shall be on an unprotected and non-harmful interference basis, Intelsat License LLC, shall not cause harmful interference to, and shall not claim protection from, interference caused to it by any other lawfully operating station and it shall cease transmission(s) immediately upon notice of such interference and must inform the Commission, in writing, immediately of such an event.
2. All operators of satellites in that path will be provided with an emergency phone number where the licensee can be reached when harmful interference occurs. Currently the 24x7 contact information for the drift mission is as follows: Ph.: (703) 559-7701 - East Coast Operations Center (primary); (310) 525-5591 - West Coast Operations Center (back-up). Request to speak with Harry Burnham or Kevin Bell.
3. Grant of this STA is without prejudice to any determination that the Commission may make regarding pending or future Intelsat License LLC applications.
4. Any action taken or expense incurred as a result of operations pursuant to this STA is solely at Intelsat License LLC's risk.

This action is issued pursuant to Section 0.261 of the Commission's rules on delegated authority, 47 C.F.R. §0.261, and is effective upon release.

2. Contact

Name:	Cynthia J. Grady	Phone Number:	703-559-6949
Company:	Intelsat US LLC	Fax Number:	703-559-8539
Street:	7900 Tysons One Place	E-Mail:	cynthia.grady@intelsat.com
City:	McLean	State:	VA
Country:	USA	Zipcode:	22102 -5972
Attention:		Relationship:	Legal Counsel

(If your application is related to an application filed with the Commission, enter either the file number or the IB Submission ID of the related application. Please enter only one.)

3. Reference File Number or Submission ID

4a. Is a fee submitted with this application?

- ☒ If Yes, complete and attach FCC Form 159. If No, indicate reason for fee exemption (see 47 C.F.R. Section 1.1114).
☐ Governmental Entity ☐ Noncommercial educational licensee
☐ Other (please explain):

4b. Fee Classification CGX – Fixed Satellite Transmit/Receive Earth Station

5. Type Request

- ☐ Use Prior to Grant ☐ Change Station Location ☒ Other

6. Requested Use Prior Date

7. CityNuevo

8. Latitude
(dd mm ss.s h) 33 47 43.6 N

9. State CA	10. Longitude (dd mm ss.s h) 117 5 20.4 W
11. Please supply any need attachments. Attachment 1: STA Request Attachment 2: Exhibit B Attachment 3: Exhibit C	
12. Description. (If the complete description does not appear in this box, please go to the end of the form to view it in its entirety.) <div style="border: 1px solid black; padding: 5px; margin: 5px;"> Intelsat License LLC herein requests a grant of Special Temporary Authority for 30 days, commencing January 21, 2019, to use its Riverside, California earth station (Call Sign E040125) to provide launch and early orbit phase services for the GSAT-31 satellite. GSAT-31 is expected to launch on January 21, 2019. </div>	
13. By checking Yes, the undersigned certifies that neither applicant nor any other party to the application is subject to a denial of Federal benefits that includes FCC benefits pursuant to Section 5301 of the Anti-Drug Act of 1988, 21 U.S.C. Section 862, because of a conviction for possession or distribution of a controlled substance. See 47 CFR 1.2002(b) for the meaning of "party to the application" for these purposes. <input checked="" type="radio"/> Yes <input type="radio"/> No	
14. Name of Person Signing Cynthia J. Grady	15. Title of Person Signing Senior Counsel, Intelsat US LLC
WILLFUL FALSE STATEMENTS MADE ON THIS FORM ARE PUNISHABLE BY FINE AND / OR IMPRISONMENT (U.S. Code, Title 18, Section 1001), AND/OR REVOCATION OF ANY STATION AUTHORIZATION (U.S. Code, Title 47, Section 312(a)(1)), AND/OR FORFEITURE (U.S. Code, Title 47, Section 503).	

December 31, 2018

Ms. Marlene H. Dortch
Secretary
Federal Communications Commission
445 12th Street, SW
Washington, DC 20554

Re: Requests for Special Temporary Authority
Fillmore, California Earth Station E4132
Riverside, California Earth Station E040125

Dear Ms. Dortch:

Intelsat License LLC ("Intelsat") herein requests a grant of Special Temporary Authority ("STA")¹ for 30 days, commencing January 21, 2019, to use its Fillmore, California C-band earth station (Call Sign E4132) and its Riverside, California earth station (Call Sign E040125) to provide launch and early orbit phase ("LEOP") services for the GSAT-31 satellite. GSAT-31 is expected to launch on January 21, 2019.² Intelsat expects the LEOP period to last approximately 10 days.

The GSAT-31 LEOP operations will be performed at the following frequencies: 6415.000 MHz and 6423.496 MHz (CP) in the uplink; and 4188.768 MHz and 4196.928 MHz (CP) in the downlink. The LEOP operations will be coordinated with all operators of satellites that use the same frequency bands and are in the LEOP path.³ All operators of satellites in that path will be provided with an emergency phone number where the licensee can be reached in the event that harmful interference occurs.

The 24x7 contact information for the GSAT-31 LEOP mission is as follows:

Ph.: (703) 559-7701 – East Coast Operations Center (primary)
(310) 525-5591 – West Coast Operations Center (back-up)

Request to speak with Harry Burnham or Kevin Bell.

¹ Intelsat has filed its STA request, FCC Form 159, a \$210.00 filing fee, and this supporting letter electronically via the International Bureau's Filing System ("IBFS").

² The in-orbit testing and final location for GSAT-31, which Intelsat understands is licensed by India, will be 48.0° E.L.

³ Indian Space Research Organisation ("ISRO"), the manager of the GSAT-31 mission, will handle the coordination.

Applicant: Intelsat License LLC
Call Sign: E040125
File No.: SES-STA-20181023-03256
Special Temporary Authority ("STA")

Intelsat License LLC is granted special temporary authority for 30 days, beginning January 21, 2019, to operate its Riverside, CA earth stations to provide launch and early orbit phase (LEOP) services for the GSAT-31 satellite, licensed by India, on center frequencies: 6415.000 MHz and 6423.496 MHz (Earth-to-space); and 4188.768 MHz and 4196.928 MHz (space-to-Earth) under the following conditions.

1. All operations shall be on an unprotected and non-harmful interference basis, Intelsat License LLC, shall not cause harmful interference to, and shall not claim protection from, interference caused to it by any other lawfully operating station and it shall cease transmission(s) immediately upon notice of such interference and must inform the Commission, in writing, immediately of such an event.
2. All operators of satellites in that path will be provided with an emergency phone number where the licensee can be reached when harmful interference occurs. Currently the 24x7 contact information for the drift mission is as follows: Ph.: (703) 559-7701 - East Coast Operations Center (primary); (310) 525-5591 - West Coast Operations Center (back-up). Request to speak with Harry Burnham or Kevin Bell.
3. Grant of this STA is without prejudice to any determination that the Commission may make regarding pending or future Intelsat License LLC applications.
4. Any action taken or expense incurred as a result of operations pursuant to this STA is solely at Intelsat License LLC's risk.

This action is issued pursuant to Section 0.261 of the Commission's rules on delegated authority, 47 C.F.R. §0.261, and is effective upon release.

FCC NOTICE REQUIRED BY THE PAPERWORK REDUCTION ACT

The public reporting for this collection of information is estimated to average 2 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the required data, and completing and reviewing the collection of information. If you have any comments on this burden estimate, or how we can improve the collection and reduce the burden it causes you, please write to the Federal Communications Commission, AMD-PERF, Paperwork Reduction Project (3060-0678), Washington, DC 20554. We will also accept your comments regarding the Paperwork Reduction Act aspects of this collection via the Internet if you send them to PRA@fcc.gov. PLEASE DO NOT SEND COMPLETED FORMS TO THIS ADDRESS.

Remember – You are not required to respond to a collection of information sponsored by the Federal government, and the government may not conduct or sponsor this collection, unless it displays a currently valid OMB control number or if we fail to provide you with this notice. This collection has been assigned an OMB control number of 3060-0678.

THE FOREGOING NOTICE IS REQUIRED BY THE PAPERWORK REDUCTION ACT OF 1995, PUBLIC LAW 104-13, OCTOBER 1, 1995, 44 U.S.C. SECTION 3507.

Exhibit C

PETITION FOR WAIVER OF SECTIONS 25.137 AND 25.114

Pursuant to Section 25.137 of the Federal Communications Commission's ("Commission" or "FCC") rules, earth station applicants "requesting authority to communicate with a non-U.S. licensed space station" to serve the United States must demonstrate that U.S.-licensed satellite systems have effective competitive opportunities to provide analogues services in certain countries and must provide the same legal and technical information for the non-U.S.-licensed space station as required by Section 25.114 for U.S.-licensed space stations.¹ Intelsat License LLC ("Intelsat") herein seeks authority to provide launch and early orbit phase ("LEOP") services—not commercial services—to the United States, and thus believes that Section 25.137 does not apply.²

To the extent the Commission determines, however, that Intelsat's request for authority to provide LEOP services on a special temporary basis is a request to serve the United States with a non-U.S.-licensed satellite, Intelsat respectfully requests a waiver of Sections 25.137 and 25.114 of the Commission's rules.³ The Commission may grant a waiver for good cause shown.⁴ The Commission typically grants a waiver where the particular facts make strict compliance inconsistent with the public interest.⁵ In granting a waiver, the Commission may take into account considerations of hardship, equity, or more effective implementation of overall policy on an individual basis.⁶ Waiver is therefore appropriate if special circumstances warrant a deviation from the general rule, and such a deviation will serve the public interest.

In this case, good cause exists for a waiver of both Section 25.137 and Section 25.114 of the FCC's rules. With respect to Section 25.114, Intelsat seeks authority only to provide LEOP services for the GSAT-31 satellite. The information sought by Section 25.114 is

¹ 47 C.F.R. § 25.137.

² See *EchoStar Satellite Operating Company Application for Special Temporary Authority Related to Moving the EchoStar 6 Satellite from the 77° W.L. Orbital Location to the 96.2° W.L. Orbital Location, and to Operate at the 96.2° W.L. Orbital Location*, Order and Authorization, 28 FCC Rcd. 4229 (2013) (noting that operating TT&C earth stations in the United States with a foreign-licensed satellite does not constitute "DBS service").

³ 47 C.F.R. §§ 25.137 and 25.114.

⁴ 47 C.F.R. § 1.3.

⁵ *N.E. Cellular Tel. Co. v. FCC*, 897 F.2d 1164, 1166 (D.C. Cir. 1990) ("Northeast Cellular").

⁶ *WAIT Radio v. FCC*, 419 F.2d 1153, 1159 (D.C. Cir. 1969); *Northeast Cellular*, 897 F.2d at 1166.

not relevant to LEOP services. Moreover, Intelsat does not have—and would not easily be able to obtain—such information because Intelsat is not the operator of the GSAT-31 satellite. Intelsat has a contract with Indian Space Research Organisation, the manufacturer of the GSAT-31 satellite, to conduct LEOP services.

The information required under Section 25.114 of the FCC's rules is not necessary to determine potential harmful interference. The Schedule S information for this satellite would pertain to the operation of the GSAT-31 satellite at its final orbital location. However, the present application for LEOP services involves communications *prior* to the satellite attaining its final location in the geostationary orbit. In other words, during the LEOP mission, the earth station will not be communicating with a satellite located in the geostationary orbit. Rather, it will be transmitting to a satellite traveling on its "transfer orbit" or "LEOP path," which starts immediately following its separation from a launch vehicle, and ends when the satellite reaches its geostationary orbital location. Moreover, as with any STA, Intelsat will perform the LEOP services on a non-interference basis.

Because it is not relevant to the service for which Intelsat seeks authorization, and because obtaining the information would be a hardship, Intelsat seeks a waiver of all the information required by Section 25.114 of the Commission's rules. Intelsat has provided in this STA request the required technical information that is relevant to the LEOP services for which Intelsat seeks authorization.

Good cause also exists to waive Section 25.137 of the agency's rules. Section 25.137 is designed to ensure that "U.S.-licensed satellite systems have effective competitive opportunities to provide analogous services" in other countries.⁷ Here, there is no service being provided by the satellite; it is simply being placed in its orbital location after separating from the launch vehicle. Thus, the purpose of Section 25.137 would not be served by applying these rules to LEOP services. For example, Section 25.137(d)(4) requires earth station applicants requesting authority to operate with a non-U.S.-licensed space station that is not in orbit and operating to post a bond.⁸ The underlying purpose of Section 25.137(d)(4)—to provide parity between U.S.-licensed and non-U.S.-licensed commercial satellite systems in discouraging orbital location warehousing—would not be served by requiring Intelsat to post a bond to provide approximately 10 days of LEOP services to the GSAT-31 satellite.

It is Intelsat's understanding that GSAT-31 is licensed by India, which is a WTO-member country. Thus, the purpose of Section 25.137—to ensure that U.S. satellite operators enjoy "effective competitive opportunities" to serve certain foreign markets—will not be undermined by grant of this waiver request.

⁷ 47 C.F.R. § 25.137(a).

⁸ See 47 C.F.R. §25.137(d)(4).

Exhibit C
Requests for Special Temporary Authority
Fillmore, California Earth Station E4132
Riverside, California Earth Station E040125
Page 3

Finally, Intelsat notes that it expects to operate with the GSAT-31 satellite using its U.S. earth station for a period of approximately 10 days. Requiring Intelsat to obtain copious technical and legal information from an unrelated party, where there is no risk of harmful interference and the operations will cease after approximately 10 days, would pose undue hardship without serving underlying policy objectives. Given these particular facts, the waiver sought herein is plainly appropriate.

Prepared By

COMSEARCH

19700 Janelia Farm Boulevard, Ashburn, VA 20147
(703)726-5500 <http://www.comsearch.com>

Prepared For
Intelsat License LLC
Nuevo, California

Temporary Transmit-Only Earth Station
Operation Dates: 01/29/2019 - 02/20/2019

Pursuant to Part 25.203(c) of the FCC Rules and Regulations, the satellite earth station proposed in this application was coordinated by Comsearch using computer techniques and in accordance with Part 25 of the FCC Rules and Regulations. Verbal and written coordination was conducted with the below listed carriers on November 29, 2018.

Company

ABC Holding Company Inc.
AT&T Mobility Spectrum LLC - Arizona
AT&T Mobility Spectrum LLC - N CA
AT&T Mobility Spectrum LLC - Southern CA
Air Sites 2000 LLC
Alltel Comm Southwest Holdings Inc.
Anaheim City, of
Arizona Public Service Company (APS)
Arizona, State Of
BNSF Railway Company
CCO SoCal I, LLC
California Internet Solutions, Inc.
California Internet, L.P.
California, State of
Calvary Chapel of Costa Mesa
Cellco Partnership - Southern California
City of Casa Grande
City of Los Angeles Dept Water & Power
City of Montebello
City of Yuma
Coachella Valley Water District
Coast Community College District
Commnet Four Corners, LLC
DM Ventures, Inc. dba Warp2Biz
DRS Global Enterprise Solutions, Inc.
Entravision Holdings, LLC
Federal Communication Commission
Fresno MSA Limited Partnership
Frontier California Inc.
Gila River Cellular General Partnership
Glendale City California
Global Telecom & Technology Americas, In
GovNET Licenses LLC
ION Media Los Angeles License, Inc.
Imperial Irrigation District
KTLA, LLC
Kern Ed Telecom Consortium
Kern, County of
LDM Engineering

Lightwave Broadband LLC
 Los Angeles City Info Technology Agency
 Los Angeles County Dept of Public Works
 Los Angeles County FCC Licensing Section
 Los Angeles County Metro Transit Auth
 Los Angeles Regional Interoperable Comm
 Los Angeles SMSA Ltd. Partnership
 Los Angeles Unified School District
 MHO Networks
 Maricopa County Wireless Systems
 Metropolitan Water Dist of So California
 Mobile Relay Associates Inc.
 New Cingular Wireless PCS LLC - AZ
 New Cingular Wireless PCS - Los Angeles
 New Cingular Wireless PCS LLC - N CAL
 New Cingular Wireless PCS LLC -San Diego
 New Cingular Wireless PCS, LLC - SE Cal
 Nextel License Holdings 4 Inc.
 Nextel of California Inc.
 Norris, Samuel O
 Northrop Grumman Systems Corp.
 Nrj TV La License Co, LLC
 Olympic Wireless, LLC
 Orange, County of, CA
 Pacific Bell Tel Com dba AT&T California
 Pacific Lightwave Inc
 Phoenix, City of
 Pinal, County of
 Qwest Corporation
 Regional 3Cs
 Riverside, County of
 San Bernardino County of California
 San Diego Broadband
 San Diego Gas & Electric Company
 San Diego, City of
 San Diego, County of
 Skyriver Communications
 Southern California Edison Company
 Southern California Gas Company
 Southern California Regional Rail Auth.
 Spectrum Link, Inc.
 Sprint Spectrum L.P.
 Sprint Telephony PCS, L.P.
 Station Venture Operations, LP
 T-Mobile License LLC
 TV Microwaves Company
 Table Top Telephone Company
 Telink Networks SW, LLC
 Time Warner Cable Pacific West LLC
 Tucson Electric Power Company
 Turn Wireless, LLC
 Ultimate Internet Access, Inc
 Union Pacific Railroad Company
 University of California, HPWREN
 Vectus, Inc
 Verizon Wireless (VAW) LLC (Southern CA)
 Verizon Wireless (VAW) LLC-N CA/NV
 Verizon Wireless(VAW) LLC-AZ/CO/NM/NV/UT
 Western Broadband Inc.
 Wiline Spectrum Holdings LLC
 Wispenn
 ABC Holding Company Inc.

AT&T Mobility Spectrum LLC - Arizona
 AT&T Mobility Spectrum LLC - N CA
 AT&T Mobility Spectrum LLC - Southern CA
 Air Sites 2000 LLC
 Alltel Comm Southwest Holdings Inc.
 Anaheim City, of
 Arizona Public Service Company (APS)
 Arizona, State Of
 BNSF Railway Company
 CCO SoCal I, LLC
 California Internet Solutions, Inc.
 California Internet, L.P
 California, State of
 Calvary Chapel of Costa Mesa
 Cellco Partnership - Southern California
 City of Casa Grande
 City of Los Angeles Dept Water & Power
 City of Montebello
 City of Yuma
 Coachella Valley Water District
 Coast Community College District
 Commnet Four Corners, LLC
 DM Ventures, Inc. dba Warp2Biz
 DRS Global Enterprise Solutions, Inc.
 Entravision Holdings, LLC
 Federal Communication Commission
 Fresno MSA Limited Partnership
 Frontier California Inc.
 Gila River Cellular General Partnership
 Glendale City California
 Global Telecom & Technology Americas, In
 GovNET Licenses LLC
 ION Media Los Angeles License, Inc.
 Imperial Irrigation District
 KTLA, LLC
 Kern County Superintendent of Schools
 Kern Ed Telecom Consortium
 Kern, County of
 LDM Engineering
 Lightwave Broadband LLC
 Los Angeles City Info Technology Agency
 Los Angeles County Dept of Public Works
 Los Angeles County FCC Licensing Section
 Los Angeles County Metro Transit Auth
 Los Angeles Regional Interoperable Comm
 Los Angeles SMSA Ltd. Partnership
 Los Angeles Unified School District
 MHO Networks
 Maricopa County Wireless Systems
 Metropolitan Water Dist of So California
 Mobile Relay Associates Inc.
 New Cingular Wireless PCS LLC - AZ
 New Cingular Wireless PCS - Los Angeles
 New Cingular Wireless PCS LLC - N CAL
 New Cingular Wireless PCS LLC -San Diego
 New Cingular Wireless PCS, LLC - SE Cal

Nextel License Holdings 4 Inc.
Nextel of California Inc.
Norris, Samuel O
Northrop Grumman Systems Corp.
Nrj TV La License Co, LLC
Olympic Wireless, LLC
Orange, County of, CA
Pacific Bell Tel Com dba AT&T California
Pacific Lightwave Inc
Phoenix, City of
Pinal, County of
Qwest Corporation
Regional 3Cs
Riverside, County of
San Bernardino County of California
San Diego Broadband
San Diego Gas & Electric Company
San Diego, City of
San Diego, County of
Skyriver Communications
Southern California Edison Company
Southern California Gas Company
Southern California Regional Rail Auth.
Sprint Spectrum L.P.
Station Venture Operations, LP
T-Mobile License LLC
TV Microwaves Company
Table Top Telephone Company
Telink Networks SW, LLC
Time Warner Cable Pacific West LLC
Tucson Electric Power Company
Turn Wireless, LLC
Ultimate Internet Access, Inc
Union Pacific Railroad Company
University of California, HPWREN
Verizon Wireless (VAW) LLC (Southern CA)
Verizon Wireless (VAW) LLC-N CA/NV
Verizon Wireless(VAW) LLC-AZ/CO/NM/NV/UT
West Covina, City of
Western Broadband Inc.
Wiline Spectrum Holdings LLC
Wisprenn

There are no unresolved interference objections with the station contained in these applications.

The following section presents the data pertinent to frequency coordination of the earth station that was circulated to all carriers within its coordination contours.

COMSEARCH

Earth Station Data Sheet

19700 Janelia Farm Boulevard, Ashburn, VA 20147
(703)726-5500 <http://www.comsearch.com>

Date: 11/29/2018
Job Number: 181129COMSGE08

Administrative Information

Status	TEMPORARY (Operation from 01/29/2019 to 02/20/2019)
Call Sign	TEMP02
Licensee Code	INTELS
Licensee Name	Intelsat License LLC

Site Information

VENUE NAME	NUEVO, CA
Latitude (NAD 83)	33° 47' 43.6" N
Longitude (NAD 83)	117° 5' 20.4" W
Climate Zone	A
Rain Zone	4
Ground Elevation (AMSL)	566.62 m / 1859.0 ft

Link Information

Satellite Type	Geostationary
Mode	TO - Transmit-Only
Modulation	Digital
Satellite Arc	45° W to 190° West Longitude
Azimuth Range	100.2° to 260.3°
Corresponding Elevation Angles	6.2° / 5.5°
Antenna Centerline (AGL)	7.32 m / 24.0 ft

Antenna Information

		Transmit - FCC32	
Manufacturer		TIW	
Model		11.1 meter	
Gain / Diameter		55.5 dBi / 11.1 m	
3-dB / 15-dB Beamwidth		0.29° / 0.54°	
Max Available RF Power	(dBW/4 kHz)	8.6	
	(dBW/MHz)	32.6	
Maximum EIRP	(dBW/4 kHz)	64.1	
	(dBW/MHz)	88.1	
Interference Objectives:	Long Term	-154.0 dBW/4 kHz	20%
	Short Term	-131.0 dBW/4 kHz	0.0025%

Frequency Information

	Transmit 6.1 GHz
Emission / Frequency Range (MHz)	850KFXD / 6415.0
	850KFXD / 6423.496

Max Great Circle Coordination Distance	536.2 km / 333.1 mi
Precipitation Scatter Contour Radius	321.4 km / 199.7 mi

Coordination Values	NUEVO, CA	
Licensee Name	Intelsat License LLC	
Latitude (NAD 83)	33° 47' 43.6" N	
Longitude (NAD 83)	117° 5' 20.4" W	
Ground Elevation (AMSL)	566.62 m / 1859.0 ft	
Antenna Centerline (AGL)	7.32 m / 24.0 ft	
Antenna Model	TIW 11.1 meter	
Antenna Mode	Transmit 6.1 GHz	
Interference Objectives: Long Term	-154.0 dBW/4 kHz	20%
Short Term	-131.0 dBW/4 kHz	0.0025%
Max Available RF Power	8.6 (dBW/4 kHz)	

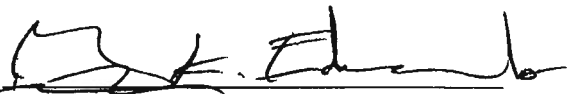
Azimuth (°)	Horizon Elevation (°)	Antenna Discrimination (°)	Transmit 6.1 GHz	
			Horizon Gain (dBi)	Coordination Distance (km)
0	0.91	99.68	-10.00	160.90
5	2.23	95.18	-10.00	125.83
10	1.88	90.19	-10.00	133.16
15	2.42	85.20	-10.00	122.25
20	2.49	80.21	-10.00	120.85
25	2.56	75.22	-10.00	119.49
30	3.50	70.22	-10.00	102.07
35	3.34	65.23	-10.00	105.02
40	3.36	60.23	-10.00	104.68
45	3.28	55.24	-10.00	106.09
50	2.88	50.27	-10.00	113.58
55	2.50	45.31	-9.40	122.87
60	2.77	40.31	-8.14	122.67
65	3.44	35.29	-6.69	115.99
70	3.10	30.33	-5.05	128.10
75	3.19	25.36	-3.10	133.79
80	3.76	20.33	-0.70	132.86
85	3.33	15.45	2.28	152.87
90	3.39	10.56	6.41	174.12
95	2.51	6.34	11.94	220.14
100	2.99	3.18	19.45	491.65
105	3.63	5.38	13.72	205.53
110	3.84	9.29	7.80	171.48
115	3.70	13.36	3.86	152.77
120	3.87	17.17	1.13	137.08
125	3.84	21.02	-1.07	130.12
130	4.49	24.32	-2.65	114.61
135	3.88	28.30	-4.29	117.10
140	4.24	31.47	-5.45	107.49
145	4.11	34.76	-6.53	105.27
150	4.48	37.41	-7.32	100.00
155	4.67	39.84	-8.01	100.00
160	4.09	42.53	-8.72	100.00
165	4.55	43.90	-9.06	100.00
170	4.85	44.86	-9.30	100.00
175	5.79	44.68	-9.25	100.00
180	6.19	44.52	-9.21	100.00
185	6.91	43.57	-8.98	100.00

Coordination Values	NUEVO, CA
Licensee Name	Intelsat License LLC
Latitude (NAD 83)	33° 47' 43.6" N
Longitude (NAD 83)	117° 5' 20.4" W
Ground Elevation (AMSL)	566.62 m / 1859.0 ft
Antenna Centerline (AGL)	7.32 m / 24.0 ft
Antenna Model	TIW 11.1 meter
Antenna Mode	Transmit 6.1 GHz
Interference Objectives: Long Term	-154.0 dBW/4 kHz 20%
Short Term	-131.0 dBW/4 kHz 0.0025%
Max Available RF Power	8.6 (dBW/4 kHz)

Azimuth (°)	Horizon Elevation (°)	Antenna Discrimination (°)	Transmit 6.1 GHz	
			Horizon Gain (dBi)	Coordination Distance (km)
190	7.27	42.53	-8.72	100.00
195	6.99	41.64	-8.49	100.00
200	6.27	40.64	-8.22	100.00
205	5.71	38.99	-7.77	100.00
210	5.71	36.45	-7.04	100.00
215	6.70	32.84	-5.91	100.00
220	7.49	29.16	-4.62	100.00
225	7.03	26.16	-3.44	100.00
230	5.65	23.57	-2.31	102.80
235	6.10	19.58	-0.30	106.16
240	5.73	16.02	1.88	118.62
245	5.59	12.21	4.83	131.75
250	5.18	8.50	8.77	152.31
255	4.95	4.62	15.38	193.71
260	4.51	1.01	31.92	536.17
265	4.74	4.76	15.05	195.22
270	4.38	9.77	7.26	156.75
275	4.51	14.74	2.79	134.59
280	4.14	19.75	-0.39	128.11
285	3.19	24.80	-2.86	133.33
290	2.77	29.82	-4.86	133.59
295	1.04	34.95	-6.59	172.46
300	0.82	39.93	-8.03	176.75
305	0.00	44.97	-9.32	215.43
310	0.00	49.93	-10.00	212.66
315	0.00	54.89	-10.00	212.66
320	0.00	59.86	-10.00	212.66
325	0.00	64.83	-10.00	212.66
330	0.00	69.80	-10.00	212.66
335	0.00	74.78	-10.00	212.66
340	0.00	79.75	-10.00	212.66
345	0.00	84.73	-10.00	212.66
350	0.00	89.71	-10.00	212.66
355	0.00	94.68	-10.00	212.66

Certification

I hereby certify that I am the technically qualified person responsible for the preparation of the frequency coordination data contained in this report. I am familiar with Parts 101 and 25 of the FCC Rules and Regulations and I have either prepared or reviewed the frequency coordination data submitted with this report, and that it is complete and correct to the best of my knowledge and belief.

BY: 

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DATED: December 17, 2018